

CONTENTS OF VOLUME 44

Number 1

- 1 *N*-methylene phosphonic chitosan: a novel soluble derivative
A. HERAS (MADRID, SPAIN), N. M. RODRÍGUEZ, V. M. RAMOS & E. AGULLÓ (BAHÍA BLANCA, ARGENTINA)
- 9 Isolation of feruloylated arabinans and rhamnogalacturonans from sugar beet pulp and their gel forming ability by oxidative cross-linking
A. OOSTERVELD, I. E. POL, G. BELDMAN & A. G. J. VORAGEN (WAGENINGEN, THE NETHERLANDS)
- 19 Amylose determination in genetically modified starches
C. GÉRARD, C. BARRON, P. COLONNA & V. PLANCHOT (NANTES, FRANCE)
- 29 Fractional isolation, physico-chemical characterization and homogeneous esterification of hemicelluloses from fast-growing poplar wood
R. C. SUN, J. M. FANG, J. TOMKINSON (BANGOR, UK), Z. C. GENG & J. C. LIU (YANGLING, PEOPLE'S REPUBLIC OF CHINA)
- 41 Isolation and physicochemical characterization of soluble scleroglucan from *Sclerotium rolfsii*. Rheological properties, molecular weight and conformational characteristics
J. I. FARIÑA, F. SIÑERIZ, O. E. MOLINA & N. I. PEROTTI (TUCUMÁN, ARGENTINA)
- 51 Structural characterisation of xyloglucan and xylans present in olive fruit (*Olea europaea* cv koroneiki)
E. VIERHUIS, H. A. SCHOLS, G. BELDMAN & A. G. J. VORAGEN (WAGENINGEN, THE NETHERLANDS)
- 63 Pectic substances from red beet (*Beta vulgaris conditiva*). Part I. Structural analysis of rhamnogalacturonan I using enzymic degradation and methylation analysis
G. R. STRASSER & R. AMADÓ (ZURICH, SWITZERLAND)
- 71 Antimicrobial effect of chitooligosaccharides produced by bioreactor
YOU-JIN JEON, PYO-JAM PARK & SE-KWON KIM (PUSAN, SOUTH KOREA)

Book Reviews

- 77 Colloid–Polymer Interactions: From Fundamentals to Practice
- 77 Pills, Potions and Poisons, How Drugs Work
- 78 Introduction to Soft Matter: Polymers, Colloids, Amphiphiles and Liquid Crystals
- 78 Your Choice of Food Starches—The National Starch Guide
- 79 Recent Advances in Carbohydrate Bioengineering
- 79 Stereoselective Biocatalysis
- 81 Correspondence

85 Bibliography

97 Calendar

Number 2

- 99 Protective effects of phosphated chitin (P-chitin) in a mice model of acute respiratory distress syndrome (ARDS)
D. R. KHANAL, Y. OKAMOTO, K. MIYATAKE, T. SHINOBU, Y. SHIGEMASA (TOTTORI, JAPAN), S. TOKURA (SUITA, JAPAN) & S. MINAMI (TOTTORI, JAPAN)
- 107 Linear mannan in the endosperm of *Schizolobium amazonicum*
C. L. DE O. PETKOWICZ, F. REICHER (CURITIBA, BRAZIL), H. CHANZY, F. R. TARAVEL & R. VUONG (GRENOBLE, FRANCE)
- 113 Structural stability of (1 → 3)- β -D-glucan macrocycles
B. H. FALCH & B. T. STOKKE (TRONDHEIM, NORWAY)
- 123 Chitosan modified poly(glycidyl methacrylate–butyl acrylate) copolymer grafted bovine pericardial tissue—anticalcification properties
C. SHANTHI & K. PANDURANGA RAO (CHENNAI, INDIA)
- 133 Composition and rheological properties of *Albizia lebbbeck* gum exudate
R. C. M. DE PAULA (FORTALEZA, BRAZIL), S. A. SANTANA (SÃO LUÍS, BRAZIL) & J. F. RODRIGUES (FORTALEZA, BRAZIL)
- 141 Anti-HIV activity of sulfonated arabinofuranan and xylofuranan
T. YOSHIDA, B. W. KANG, K. HATTORI (SAPPORO, JAPAN), T. MIMURA, Y. KANEKO (TOKYO, JAPAN), H. NAKASHIMA, M. PREMANATHAN, R. ARAGAKI (KAGOSHIMA, JAPAN), N. YAMAMOTO (TOKYO, JAPAN) & T. URYU (YAMANASHI, JAPAN)
- 151 The relationship between thermodynamic and structural properties of low and high amylose maize starches
Y. I. MATVEEV (MOSCOW, RUSSIAN FEDERATION), J. J. G. VAN SOEST (WAGENINGEN, THE NETHERLANDS), C. NIEMAN (LAUSANNE, SWITZERLAND), L. A. WASSERMAN, V. A. PROTSEROV, M. EZERNITSKAJA & V. P. YURYEV (MOSCOW, RUSSIAN FEDERATION)
- 161 Mass determination of oligosaccharides by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry following HPLC, assisted by on-line desalting and automated sample handling
M. A. KABEL, H. A. SCHOLS & A. G. J. VORAGEN (WAGENINGEN, NETHERLANDS)

Short Communication

- 167 Conductivity enhancement due to ion dissociation in plasticized chitosan based polymer electrolytes
Z. OSMAN, Z. A. IBRAHIM & A. K. AROF (KUALA LUMPUR, MALAYSIA)

Book Reviews

- 175 Polymers for the Medical Industry: Conference Proceedings
- 175 Chemical and Physical Networks. Formation and Control of Properties
- 176 Sweeteners: Alternative
- 176 Emulsifiers: Practical Guides for the Food Industry
- 176 Scientific Unit Conversion. A Practical Guide to Metrication; 2nd ed.
- 177 Breakfast Cereals and How They are Made; 2nd ed.
- 177 The molecular and supramolecular chemistry of carbohydrates. Chemical introduction to the glycosciences

Number 3

- 189 Sweet potato β -amylase immobilized on chitosan beads and its application in the semi-continuous production of maltose
T. NODA, S. FURUTA & I. SUDA (KUMAMOTO, JAPAN)
- 197 Gelling temperature, gel clarity and texture of gellan gels containing fructose or sucrose
J. TANG, R. MAO (PULLMAN, WA, USA), M. A. TUNG (GUELPH, CANADA) & B. G. SWANSON (PULLMAN, WA, USA)
- 211 Physical changes of chitin and chitosan in canine gastrointestinal tract
Y. OKAMOTO, M. NOSE, K. MIYATAKE, J. SEKINE, R. OURA, Y. SHIGEMASA & S. MINAMI (TOTTORI, JAPAN)
- 217 Steady shear and transient properties of starch in dimethylsulfoxide
B. KAPOOR & M. BHATTACHARYA (ST. PAUL, MN, USA)
- 233 Chitosan coated cotton fiber: preparation and physical properties
X. D. LIU, N. NISHII (SAPPORO, JAPAN), S. TOKURA (OSAKA, JAPAN) & N. SAKAIRI (SAPPORO, JAPAN)
- 239 Effect of soil temperature on starch properties of sweet potatoes
T. NODA (KUMAMOTO, JAPAN), T. KOBAYASHI (MIYAKONOJO-MIYAZAKI, JAPAN) & I. SUDA (KUMAMOTO, JAPAN)
- 247 Dynamic mechanical and dielectric characterisation of amylose–glycerol films
G. K. MOATES, T. R. NOEL, R. PARKER & S. G. RING (NORWICH, UK)
- 255 New water-soluble ampholytic polysaccharides for oilfield drilling treatment: a preliminary study
L. M. ZHANG, Y. B. TAN & Z. M. LI (GUANGZHOU, PEOPLE'S REPUBLIC OF CHINA)
- 261 Hydrodynamic characterisation of the exopolysaccharide from the halophilic cyanobacterium *Aphanothece halophytica* GR02: a comparison with xanthan
G. A. MORRIS, P. LI, M. PUAUD (SUTTON BONINGTON, UK), Z. LIU (NANJING, PEOPLE'S REPUBLIC OF CHINA), J. R. MITCHELL & S. E. HARDING (SUTTON BONINGTON, UK)

Short Communication

- 269 Free radical formation in UV- and gamma-irradiated cassava starch
A. C. BERTOLINI, C. MESTRES (MONTPELLIER, FRANCE), P. COLONNA (NANTES, FRANCE) & J. RAFFI (MARSEILLE, FRANCE)

Book Reviews

- 273 Seafood Enzymes: Utilization and Influence on Postharvest Seafood Quality
- 273 Carbohydrate Chemistry
- 274 New Ingredients in Food Processing: Biochemistry and Agriculture
- 274 Cellulose Derivatives: Modification, Characterization, and Nanostructures

Number 4

- 291 Developments in mid-infrared FT-IR spectroscopy of selected carbohydrates
M. KACURÁKOVÁ (BRATISLAVA, SLOVAK REPUBLIC) & R. H. WILSON (NORWICH, UK)
- 305 Synthesis of *Haemophilus influenzae* carbohydrate surface antigens
S. OSCARSON (STOCKHOLM, SWEDEN)

- 313 Physio-chemical properties of polymyxan 88A–water system
E. N. BOUKHAROVA & N. M. PTITCHKINA (SARATOV, RUSSIA)
- 319 Hydrolysis of diethyl diferulates by a tannase from *Aspergillus oryzae*
M.-T. GARCÍA-CONESA (NORWICH, UK), P. ØSTERGAARD, S. KAUPPINEN (BAGSVAERD, DENMARK) & G. WILLIAMSON (NORWICH, UK)
- 325 Mechanisms of glycosyl transferases and hydrolases
S. G. WITHERS (VANCOUVER, CANADA)
- 339 Structure and biological activities of hypochlorite oxidized zymosan
N. OHNO, T. MIURA, N. N. MIURA, Y. ADACHI & T. YADOMAE (TOKYO, JAPAN)
- 351 Inhibitory effects of carrier-immobilized synthetic histo-blood group A-, B-, H-, and SiaLe-oligosaccharides on H₂O₂ generation by human polymorphonuclear leukocytes
A. V. TIMOSHENKO, S. Y. VAKHRUSHEV (MINSK, RUSSIAN FEDERATION), N. V. BOVIN (MOSCOW, RUSSIAN FEDERATION) & H.-J. GABIUS (MUNCHEN, GERMANY)
- 357 *Penicillium* sp. 23 alpha-galactosidase: purification and substrate specificity
L. D. VARBANETS, V. M. MALANCHUK, T. T. BUGLOVA (KYIV, UKRAINE) & R. A. KUHLMANN (MOSCOW, RUSSIAN FEDERATION)

